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To Whom It May Concern:

I'm writing this letter to express my strong support for the SciDAC Visualization and Analytics Center for Enabling Technology (VACET) in their upcoming program review.

I am writing as the lead Principal Investigator for the SciDAC Scientific Data Management Center. In this role, I am responsible for directing the activities of a portfolio of projects aimed at solving some of the most challenging data management problems faced by the DOE science community.

Through a productive collaborative effort with our team, the VACET Center has enabled us to make substantial progress towards our objectives, namely petascale data analysis and understanding. VACET has deployed our award-winning FastBit index/query software in its production-quality, parallel-capable visual data analysis application VisIt to enable rapid exploration and knowledge discovery in some of today's largest and most complex scientific datasets. This work resulted in providing scientists with a capability to explore and visualize large datasets interactively. Since it is impossible to explore and visualize very large datasets at once, innovative visualization techniques have put to use the power of FastBit to quickly select desired subsets of the data. We have applied our joint technologies in exploring accelerator design data, climate modeling data, network traffic data to identify malicious attacks, and others. Our collaborative work with the VACET center resulted in several publications, including a field-leading publication at SC08 that included authors from the SDM Center, VACET, and the SciDAC Science Application Community Petascale Project for Accelerator Science and Simulation (ComPASS). In addition, we have shared staff, Claudio Silva from the University of Utah, who performs research, development, and deployment of data understanding workflow technology developed at the SDM center to the climate science community (the Earth Systems Grid, led by Dean Williams, LLNL).

In summary, VACET has had a positive impact on our science effort, and is providing a valuable service to the scientific community. I find the joint collaborations of the two centers very fruitful, and expect to continue and expand such collaborations in the future.

Arie Shoshani
SDM Center Director